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SUBSTITUTE ABSTRACT

An index head assembly for a semiconductor device test handler is provided which allows for precise positioning of a device in a test socket, as well as accurate testing of the device once properly positioned in the test socket. The head portion of the index head assembly includes a holding part which absorbs and holds the device using a vacuum force, a heating part which generates heat to maintain the device at the appropriate temperature, and a compliance part which accurately aligns and positions the index head relative to the test socket so that the device may be properly connected to the test socket. The downward force used to connect the semiconductor device to the test socket is controlled by a force transducer, and the temperature of the semiconductor device is accurately controlled through direct heat transfer from an electric heater provided within the head portion of the index head assembly. A plurality of ball plungers and guide members, as well as the particular installation of various parts of the head portion relative to one another ensure proper alignment of the device within the test socket.